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Attitude and Awareness amongst Secondary School Students of Sexually Transmitted Infections in Akuku-Toru Local Government Area, Rivers State

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Introduction: The study investigated the attitude and awareness amongst secondary school students of sexually transmitted infections in Akuku-Toru Local Government Area of Rivers state.
Methodology: Three research questions were formulated to guide the study, with a target population of 350 from fifteen schools and sample size of 70 students, drawn through disproportionate random sampling technique. The Sexually Transmitted Infection Evaluator (STIE) questionnaire was employed to gather data from the respondents. The instrument was validated by two experts in Measurement and Evaluation, while reliability of the instrument was determined through test-retest method to obtain a coefficient of 0.90 index. The research questions were analyzed using mean value.
Results: The attitude of students towards sexually transmitted infections is negative and the awareness level is still poor.

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Conclusion: Based on the findings it was recommended that sex education should be taught in all schools and teachers should come up with modalities of improving sexuality education in schools to ensure students awareness of sexually transmitted infections.

Keywords: Attitude; awareness; sexually transmitted infections; secondary school students; Akuku-Toru.

1. INTRODUCTION

Sexually Transmitted Infections (STI) or Sexually transmitted diseases (STDs) continue to remain a public health concern in Nigeria [1]. The diseases are contracted mainly through sexual intercourse and are serious problems especially among young people. STDs have been in existence for years and historical documentation of STIs dates back to the Ebers papyrus around 1550 BC and in the Old Testament [2]. Until the 1990s, STIs were commonly known as venereal diseases [3]. Both STIs and STDs are occasionally referred to as venereal diseases [4].

These diseases were previously associated with shame and stigma, but current knowledge and exposure has erased such. The term, STIs, refers to infections that are passed from one person to another through sexual contact [5]. It can be contacted by having unprotected vaginal, anal or oral sex with an infected person. STIs may also be transmitted through sharing needles, breastfeeding, blood products and horizontal (from mother to child during childbirth) route [6].

Approximately one million people contract STDs daily and 50% of them are youths between 15-24 years [7]. The global burden of disease caused by STIs is noticeable and important. An estimated 500 million people contract at least one type of STI leading to STD each year globally [8], and more than one STI can coexist in one person. STDs include many different sexually transmittable infectious diseases such as gonorrhoea, genital herpes, chlamydia, human papilloma virus (HPV), human immunodeficiency virus (HIV) and syphilis [9]. In 2008, World Health Organization estimated 499 million new cases of curable STIs annually throughout the world in adults aged 15-49 years [8,10]. Another report estimated 20 million new cases of STIs each year [7].

In America, Human Papilloma Virus (HPV) is the most common STD, affecting over 79 million people [11] and disproportionately affects sexually active teens and young adults, though vaccine-preventable. The Centre for Disease Control (CDC) reported over 1.7 million chlamydial and half a million gonorrheal cases in 2017 in the United States alone [11]. While these infections may seem common, the most common varies depending on the location and other factors. Chlamydia is the most common STD reported on college campuses, with noticeable symptoms, especially, in men, thus, making its spread easier [12].

In Nigeria, the six most commonly transmitted STIs are chlamydia, gonorrhea, syphilis, hepatitis B, herpes and HIV. All the organisms causing the infections can be contacted by men and women [13], but the symptoms predominantly appear first and are serious in men than women, and may include painful micturition, penile discharge, swollen testicles [14,15], pelvic inflammatory disease [14], genital sores, rash, scabs all over the body [16], heart abnormalities, mental disorders, blindness, neurological problems and death. Other symptoms include liver cirrhosis, liver cancer [17], loss of appetite, feeling lethargic, low-grade fever, muscle and joint pain and aches and nausea [18], oral sores and failing immunity [19]. Generally, diagnostic tests can be performed using the following samples; blood, urine and saliva. Treatment is mainly by antibiotics and antiviral drugs, in addition to other supportive therapy.

Secondary school students are mostly teenagers. According to WHO, a teenager is any person whose age is between 10-19 years, a transitional period involving physical maturation, identity formation and acquisition of social roles [20]. The period is characterized by poor sexual behaviour and choices, poverty, intergenerational conflicts and lack of dialogue. However, early sexual risk behaviors will expose the individual to the likelihood of contracting an STI or early pregnancy, with the social consequences of creating a negative impact on the whole population [21]. At this period of age, most decisions are taken on whims and unless provided with appropriate knowledge, there are chances of engaging in risky sexual behavior [22].

Many studies have suggested that this behavior is influenced by determinants like age, gender, level and stream of education and socio-economic status [23,24]. It is interesting to note that poor attitude, knowledge/awareness and risky practices related to STIs are a universal phenomenon in the young adulthood [7], with females having higher risk of contracting an STD than their male peers due to differences in biology, sexual behavior, social attitudes, peer pressures, economic states and vulnerability.

In some societies like Africa, women and girls have difficulty in saying no to sex or unprotected sex since they are socially and economically dependent on male partners [25], and also due to the limited livelihood opportunities and various forms of gender discrimination and harassment. Women and girls also adopt sexual survival strategies [25]. In addition, they may have problems getting the required information, services and supplies they need to avoid STIs [26]. Even if they can obtain STI prevention services, they may not feel comfortable in places that are not youth friendly, thus, creating an avenue for STIs to spread fast in young people and lead to serious and painful health consequences like infertility, long-term disability and death. The factors can also portend a risk for contracting STIs, such as;, unprotected sex, multiple sex partners, history of STI, casual sex, non-consensual sex (as in rape and forced sexual intercourse), alcohol/drug abuse, intravenous drug abuse, young age and from mother to child. Other are greater sexual freedom, changing roles of women, decreased social control by religious institutions, increased emphasis in the media on sexuality, increased leisure time and rural-urban migration. Unemo, Ballard, Ison, Lewis, Ndowa, Peeling [27] also posit that increased utilization of oral contraceptive is a risk factor, as it enhances the alkalinity of the female reproductive tract, thereby, creating a favourable environment for organisms to thrive, unlike the acidic environment that destroys such organisms.

Untreated or poorly treated STIs are associated with a lot of complications in both males and females [9,28] that may be short or long-term. Serious complications such as infertility, ectopic pregnancy, cervical cancer, fetal wastage, and even death can occur. For instance, untreated chlamydia and gonorrhea can lead to salpingitis in women and epididymitis for men, which can cause infertility and sterility [29]. However, majority of the known STDs are curable, but for HPV, thus, abstinence and regular condom use for sexual intercourse is advocated [30].

The awareness of STI and their complications is important for adequate prevention and treatment, as people who do not know the symptoms may fail to recognize the need and so may not seek help. Latunji and Akinyemi [31] observed that secondary school students have poor health-seeking behavior, frequently requiring medical care at a very late stage of disease and is further exacerbated by the fact that they are likely to encounter problems in getting the required STI information on prevention and treatment services. Awareness of other STIs apart from HIV/AIDS is low in the developing world. The levels of individual STD risk are influenced by several factors such as age at first sex, frequency and type of sexual intercourse, number and characteristics of sexual partners, and condom use [32]. Awareness can be obtained in the form of information, which educates an individual. For sex education, there are two main types; comprehensive sexuality education and the abstinence-only- until marriage programme [33].

In Akuku-toru local Government Area, literatures on the attitude and awareness of STIs are scanty, if any, thus, this study sought to investigate the attitude and awareness amongst secondary school students in the area, in an attempt to fill the research gap and to identify their specific health educational needs and make appropriate recommendations to the parents, teachers, health workers, government and Ministry of Education. It specifically assessed the causes, identify the effects, attitude, level of awareness and establish the need to promote sex education of STIs amongst secondary school students in Akuku-Toru local Government Area of Rivers State, with the view that the findings will help secondary school students make right decisions regarding their sexual behaviour, help medical personnel understand the importance of educating teenagers on sexual and reproductive health and policy makers to device policies to address the phenomenon of STIs, and focused on public and private secondary school students in Idama, Kula and Abonnema communities of the study area. This study investigated the attitude and awareness amongst Secondary School Students of sexually transmitted infections in Akuku-Toru Local Government Area of Rivers state.

2. METHODOLOGY

The study employed a descriptive survey design and the Health Belief model as its theoretical framework, due to its relevance in explaining the behaviour of individuals towards a health concern, including how their perceptions influence their choices and actions. The target population is girls and boys from senior secondary schools in public secondary schools, totaling 350 in Akuku-toru LGA, with sample taken from senior secondary school three (3) students, which was 70 students in all (20% of the total) and the technique employed being disproportionate sampling, while the instrument for data collection is a self-designed questionnaire comprising 44 questions in two sections, of which section B is designed in the Likert format.

The study instrument was validated by two experts in measurement and evaluation. The reliability was tested by administering 20 copies of the study instrument to teenagers that did not form a part of the study population for which an index of 0.90 was obtained.

3. RESULTS

Table 1 shows that out of the 70 respondents, 50 (71.43%) were females while 20 (28.57%) were males. It also shows that 4(5.71%) were within 10-15 years, while 66(94.29%) were within 15-20 years.

Table 1. Showing respondents demographic data based on gender and age

Variables	Frequency (n)	Percentage (%)
Sex		
Female	50	71.43
Male	20	28.57
Age (years)		
10-15	4	5.71
16-20	66	94.29

Table 2 Shows that all the factors that cause STIs were accepted as recorded accordingly: 3.5, 3.3, 3.2, 3.3**.**

Table 3 shows the effects of STIs on secondary school students. This shows that the some items were accepted, recorded as 3.4, 2.9, 2.7 and 2.9. The result shows that the factors are the effects of STIs.

Table 4 below, respondents' attitude is shown to be poor towards STIs. This is revealed by the mean of rejection; 2.1 and 1.9 and mean acceptance; 3.1, 3.5 and 3.6 respectively.

Table 5 shows there is a fair level of awareness about STIs. This is revealed in the rejection mean of 2.6, 2.6, 2.4, 2.3, 2.2 and 2.2 while the others were accepted.

Table 2. Causes of STI

Response Items	SA	A	D	SD	MEAN	DECISION
Sexually transmitted infections can be gotten from unsterilized needles	168	75	0	3	3.5	Accepted
Sexually transmitted infections can be gotten from being transfused with blood that is infected.	144	72	14	3	3.3	Accepted
Bacteria is a possible cause of sexually transmitted infection	36	111	36	6	2.7	Not Accepted
Virus is a possible cause of sexually transmitted infection	84	120	18	0	3.2	Accepted
Fungus is a possible cause of sexually transmitted infection	32	111	36	7	2.7	Not Accepted
Transfusion of infected blood is a cause of sexually transmitted infection	60	99	40	2	2.9	Not Accepted
Sexual intercourse is a route through which one can be infected of sexually transmitted infections and sexually transmitted disease.	120	99	14	0	3.3	Accepted
Sharing infected needle is a route of sexually transmitted infections	80	93	30	4	3.0	Not Accepted

Criteria Mean =3.1

Table 3. Effects of STIs

Response Item	SA	A	D	SD	Mean	Decision
An untreated sexually transmitted infections can lead to infertility	156	66	14	2	3.4	Accepted
An untreated sexually transmitted infections can lead to fertility	4	12	66	32	1.6	Not accepted
Infertility is a complication of sexually transmitted disease	60	102	42	0	2.9	Accepted
Premature death is a complication of sexually transmitted disease	36	120	30	6	2.7	Accepted
Cervix cancer is a complication of sexually transmitted infections	72	102	24	6	2.9	Accepted

Criteria Mean = 2.7

Table 4. Attitudes of respondents to STIs

Response Item	SA	A	D	SD	Mean	Decision
I have knowledge of what sexually transmitted infections is all about	36	30	62	20	2.1	Not accepted
I knowledge of how to prevent sexually transmitted infections	12	9	98	15	1.9	Not accepted
I will accept to have sex with someone who is not prepared to use a condom	144	27	38	6	3.1	Accepted
Some of the reasons for non-use of condom include lack of awareness, lack of skills in using it, non-availability, e.t.c	156	81	8	3	3.5	Accepted
Young people should be educated on knowledge of sexually transmitted infections in order to know how to avoid them.	208	27	18	0	3.6	Accepted

Criteria means = 2.9

Table 5. Awareness level of STIs

Response Item	SA	A	D	SD	Mean	Decision
Saying no to unprotected sex does not protect one against STIs.	36	63	52	14	2.4	Not Accepted
Abstinence is the best method of preventing STIs	12	99	22	23	2.2	Not Accepted
STIs can be contacted if you shake hand with someone who has STIs.	96	90	10	11	3.0	Accepted
STIs can be contacted if one has unprotected sex with an infected person.	192	54	8	0	3.6	Accepted
The good thing in delaying sex till later in life is that one would not be infected with any disease.	12	72	50	18	2.2	Not Accepted
Healthy looking persons cannot have STIs	36	90	44	9	2.6	Not Accepted
I am not aware of STIs or STDs	120	54	2	21	2.8	Accepted
Vaginal discharge and burning pain on urination are signs of STDs	112	102	16	0	3.3	Accepted
Discharge from penis/vulva is sign of STD	48	126	20	6	2.9	Accepted
Itching in genital area and genital ulcer or open sores are signs of STDs	36	90	56	3	2.6	Not Accepted
One who has STIs must always have symptoms	116	81	10	9	3.1	Accepted
STDs are not dangerous because they can be cured.	0	81	80	3	2.3	Not Accepted

Criteria mean = 2.7

Table 6 shows the effects of promoting sex education to STIs based on criterion mean of 2.3 and two were therefore accepted; 3.1 and 3.2 respectively, while the others were rejected

The findings of the study are summarized thus:

1. STIs can be caused by any of the followings; unsterilized needles, transfusion of blood that is infected with bacteria, virus, fungus and sharing of infected needles.
2. The effects of STIs on secondary school students of Akuku toru LGA include: infertility, premature death and cervix cancer.
3. The attitudes of the students of towards STIs is negative as some students accepted to have sex with someone who is not prepared to use condom, thus, young people should be educated STIs in order to know how to avoid them.
4. The awareness level STIs is still poor, thus, abstinence should be advocated.
5. The steps to promote sex education programmes of STIs for the reduction of the infections in secondary schools include: workshops on sexuality education should be regularly organized, sex education should be given to all students and contraception methods should be explained to students along with the abstinence method.

4. DISCUSSION

This study observed that STIs can be caused by unsterilized needles, transfusion of infected blood and sharing of infected needles. This finding agrees with the reports Amu and Adegun [9], who reported that STIs are infections transmitted mostly through sexual contact by bacterial (gonorrhea, chlamydia, syphilis) or viral (genital herpes, genital warts) organisms. They further stated that different STIs can co-exist in one person.

This study also observed that majority of the respondents accepted the questions as the effects of STIs among secondary school students. This observation supports that of Vardgiden [30] that some STIs like HPV can lead to cervical cancer and HIV, which can lead to premature death. He further noted that these diseases are not merely acute illnesses, but may lead to serious complications such as infertility, ectopic pregnancy and fetal wastage. Untreated chlamydia and gonorrhea infections can also lead to salpingitis and epididymitis, both affecting fertility and subsequent sterility. He admonished the regular adherence to abstinence and condom use, to avert contracting STIs.

This study also reported that the attitudes of the respondents towards STIs, as observed from the broad acceptance shown by the mean of 2.1, 1.9, 3.1, 3.5 and 3.6. This agrees with the strategic axis of the National Strategic Plan for the fight against STIs/HIV and AIDS in Cameroon that recognizes the poor attitude of adolescents towards sexually transmitted infections [20] and the need to sensitize the populace in the fight against diseases. Also, young adulthood, the age at which decisions are taken on whims and unless provided with appropriate knowledge, their chances of engaging in risky sexual behavior become high [34]. It also agrees with Mnyika et al. [35] about the poor attitude of adolescents towards acquiring knowledge of preventive methods of STIs, leaving them with poor sexual choices.

Table 6. Steps to promote sex education programmes for STIs

Response Item	SA	A	D	SD	Mean	Decision
Workshop on sexuality education are regularly organized	12	36	44	33	1.8	Not Accepted
Sex education is given to all students	12	0	74	30	1.7	Not accepted
My school has sex education in their curriculum	136	60	22	5	3.2	Accepted
Sexuality education is given to all learners(students) in school	40	36	28	34	2.0	Not accepted
Contraception methods are explained to students	12	36	68	21	2.0	Not accepted
My teachers and parents encourage and advise me to abstain from sex	120	60	32	4	3.1	Accepted

Criteria Mean = 2.3

This study also reveals that most of the respondents have sex education in their curriculum and their parents and teachers encourage and advice sexual abstinence but sexuality education is not given to all learners. Comprehensive method, including contraceptive devices, are not explained to learners rather abstinence is stressed, as a result, adolescent get involved in sexual acts and get infected with STIs. This buttresses the importance of parents in nurturing sexual literacy and sexual health. The goals of sex education for young people have earlier been enumerated. For sex education programmes to be effective, the content and approach must take into account differences between different groups of adolescents, boys and girls, rural and urban adolescents, younger and older adolescents.

5. CONCLUSION

Based on the findings of the study it is reasonable to conclude that positive attitude and high level of awareness amongst secondary school students can help a great deal in preventing STIs and, also, focused health education and proper counseling, when initiated to change risky sexual behaviors, constitute important STI control measures in addition to early recognition and prompt and adequate treatment. It is therefore recommended that sex education should be taught in our schools and teachers should come up with modalities of improving sexuality education, principals and head teachers should enhance their supervisory support to ensure that pupils/students receive the appropriate sexual education and moral values in accordance to their ages and classes, teachers should apply their experiences as role models to help students and also advise parents in their area of difficulties as it regards sex education through mentoring and advice, pupils and students should adopt a positive attitude and have a high awareness level towards STIs, in order to be aware of the causes and effects of these infections and attendant diseases and how to prevent it, so as to avert its effects, students should be taught to abstain from sex but where that is no possible, to practice safe sex and there should be prompt treatment of students or anyone with STIs/STDs, to prevent its untold effects.

CONSENT

A letter of introduction was given to the principals of the selected public secondary schools in the LGA, the respondents were given consent letter and data collected and collated was analyzed using frequencies and percentages and the results presented in tables.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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